

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Hanada and Yang

Art Unit: Not yet assigned

Filed: Herewith

For: FIBROBLAST GROWTH FACTOR-5 (FGE-5) IS A TUMOR ASSOCIATED T-CELL ANTIGEN

Examiner: Not yet assigned

Date: March 27, 2002



INFORMATION DISCLOSURE STATEMENT
PURSUANT TO 37 C.F.R. § 1.97(b)(2)

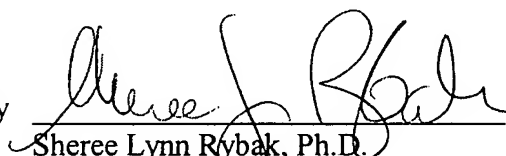
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Listed on the accompanying form PTO-1449 and enclosed herewith are several English-language documents. Applicants respectfully request that these documents be listed as references cited on the issued patent.

Applicants filed this Information Disclosure Statement ("IDS") within three months of the date of entry of the national stage as set forth in § 1.491 in an international application. As a result, no fee should be required to file this IDS. However, if the Patent Office determines that a fee is required for Applicants to file this Information Disclosure Statement, please charge any such fees, or credit overpayment, to Deposit Account No. 02-4550. A **duplicate** copy of this Information Disclosure Statement is enclosed.

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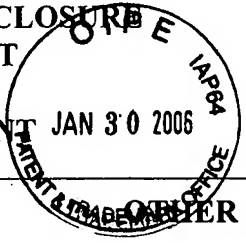
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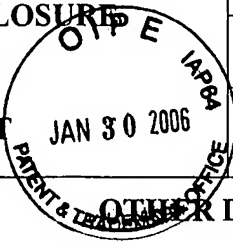
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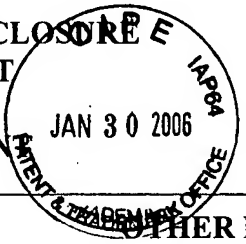
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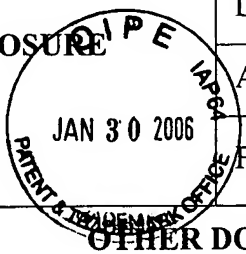
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| INFORMATION DISCLOSURE STATEMENT BY APPLICANT | | | | Docket: 4239-62489 | | App: _____ | |
| | | | | Applicant: Ken-Ichi Hanada and James C. Yang | | | |
| | | | | Filed: Herewith | | Art Unit: _____ | |
| U.S. PATENT DOCUMENTS | | | | | | | |
| Init.* | | Number | Date | Name | Class | Sub | Filed |
| | | 5,155,217 | 10/13/1992 | Goldfarb et al. | | | |
| | | 5,192,537 | 3/9/1993 | Osband | | | |
| | | 5,238,916 | 8/24/1993 | Goldfarb et al. | | | |
| | | 5,759,535 | 6/2/1998 | Cohen | | | |
| | | 5,837,233 | 11/17/1998 | Granger | | | |
| | | 5,874,254 | 2/23/1999 | Imamura et al. | | | |
| | | 5,919,459 | 7/6/1999 | Nacy et al. | | | |
| | | 5,935,818 | 8/10/1999 | Israeli et al. | | | |
| | | 5,939,526 | 8/17/1999 | Gaugler et al. | | | |
| | | | | | | | |
| FOREIGN PATENT DOCUMENTS | | | | | | | |
| | | Number | Date | Country | Class | Sub | |
| | | 10-017599 | 20-01-98 | Japan | | | |
| | | WO 90/12597 | 01.11.90 | PCT | | | |
| | | WO 97/30155 | 21.08.97 | PCT | | | |
| | | WO 97/33602 | 18.09.97 | PCT | | | |
| | | WO 98/32456 | 30.07.98 | PCT | | | |
| | | WO 99/13912 | 25.03.99 | PCT | | | |
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| FOR PATENT DOCUMENTS | | | | | | | |
| | | Number | Date | Country | Class | Sub | |
| | | WO 99/55861 | 04.11.99 | PCT | | | |
| | | WO 00/24756 | 04.05.00 | PCT | | | |
| | | | | | | | |
| OTHER DOCUMENTS | | | | | | | |
| | | | Genbank Accession No. NM_004464. | | | | |
| | | | Genbank Accession No. NP_004455. | | | | |
| | | | Genbank Accession No. M23534 M21617. | | | | |
| | | | Genbank Accession No. M37825. | | | | |
| | | | Albino et al., "Induction of Growth Factor RNA Expression in Human Malignant Melanoma: Markers of Transformation," <i>Cancer Res.</i> 51: 4815-4820 (1991). | | | | |
| | | | Altorki et al., "Characterization of Cell Lines Established from Human Gastric-Esophageal Adenocarcinomas," <i>Cancer</i> 72:649-657 (1993). | | | | |
| | | | Beldegrun et al., "Human Renal Carcinoma Line Transfected With Interleukin-2 and/or Interferon α Gene(s): Implications for Live Cancer Vaccines," <i>J. Natl. Cancer Inst.</i> 85:207-216 (1993). | | | | |
| EXAMINER: | | | | DATE | | | |
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|  OTHER DOCUMENTS | | | |
| | | | Bernhard et al., "Cellular Immune Response to Human Renal-Cell Carcinomas: Definition of a Common Antigen Recognized by HLA-A2-Restricted Cytotoxic T-Lymphocyte (CTL) Clones," <i>Int. J. Cancer</i> 59:837-842 (1994). |
| | | | Bernhard et al., "Tumor Associated Antigens in Human Renal Cell Carcinoma: MHC Restricted Recognition by Cytotoxic T Lymphocytes," <i>Tissue Antigens</i> 48:22-31 (1996). |
| | | | Brandle et al., "A Mutated HLA-A2 Molecule Recognized by Autologous Cytotoxic T Lymphocytes on a Human Renal Cell Carcinoma," <i>J. Exp. Med.</i> 183:2501-2508 (1996). |
| | | | Brossart et al., "Her-2/neu-Derived Peptides are Tumor-Associated Expressed by Human Renal Cell and Colon Carcinoma Lines and are Recognized by <i>in Vitro</i> Induced Specific Cytotoxic T Lymphocytes," <i>Cancer Res.</i> 58:732-736 (1998). |
| | | | Brouwenstijn et al., "Renal-Cell Carcinoma-Specific Lysis by Cytotoxic T-lymphocyte Clones Isolated from Peripheral Blood Lymphocytes and Tumor-Infiltrating Lymphocytes," <i>Int. J. Cancer</i> 68:177-182 (1996). |
| | | | Brouwenstijn et al., "Definition of Unique and Shared T-Cell Defined Tumor Antigens in Human Renal Cell Carcinoma," <i>J. Immunother.</i> 21:427-434 (1998). |
| | | | Caignard et al., " <i>In Situ</i> Demonstration of Renal-Cell-Carcinoma-Specific T-Cell Clones," <i>Int. J. Cancer</i> 66:564-570 (1996). |
| | | | Chen et al., "Genomic Cloning and Localization of CTAG, a Gene Encoding an Autoimmunogenic Cancer-Testis Antigen NY-ESO-1, to Human Chromosome Xq28," <i>Cytogenet. Cell Genet.</i> 79:237-240 (1997). |
| | | | Chen et al., "A Testicular Antigen Aberrantly Expressed in Human Cancers Detected by Autologous Antibody Screening," <i>Proc. Natl. Sci. USA</i> 94:1914-1918 (1997). |
| EXAMINER: | | DATE | |
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|  OTHER DOCUMENTS | | | | |
| | | | Clements et al., "Activation of Fibroblast Growth Factor (FGF) Receptors by Recombinant Human FGF-5," <i>Oncogene</i> 8:1311-1316 (1993). | |
| | | | Cullen et al., "Growth Factor Messenger RNA Expression by Human Breast Fibroblasts from Benign and Malignant Lesions," <i>Cancer Res.</i> 51:4978-4985 (1991). | |
| | | | Eisenthal et al., "Human Tumor Cells, Modified by a Novel Pressure/Crosslinking Methodology, Promote Autologous Lymphocyte Proliferation and Modulate Cytokine Secretion," <i>Cancer Immunol. Immunother.</i> 46:304-310 (1998). | |
| | | | Gaugler et al., "A New Gene Coding for an Antigen Recognized by Autologous Cytolytic T Lymphocytes on a Human Renal Carcinoma," <i>Immunogenetics</i> 44:323-330 (1996). | |
| | | | Goldfarb et al., "Expression and Possible Functions of the FGF-5 Gene," <i>Ann. NY Acad. Sci.</i> 638:38-52 (1991). | |
| | | | Haub et al., "Expression of the Fibroblast Growth Factor-5 Gene in the Mouse Embryo," <i>Development</i> 112:397-406 (1991). | |
| | | | Hannon et al., "Differentially Expressed Fibroblast Growth Factors Regulate Skeletal Muscle Development through Autocrine and Paracrine Mechanisms," <i>J. Cell Biol.</i> 132:1151-1159 (1996). | |
| | | | Hughes et al., "Evidence that Fibroblast Growth Factor 5 is a Major Muscle-Derived Survival Factor for Cultured Spinal Motoneurons," <i>Neuron</i> 10:369-377 (1993). | |
| | | | Jäger et al., "Simultaneous Humoral and Cellular Immune Response against Cancer-Testis Antigen NY-ESO-1: Definition of Human Histocompatibility Leukocyte Antigen (HLA)-A2-Binding Peptide Epitopes," <i>J. Exp. Med.</i> 187:265-270 (1998). | |
| EXAMINER: | | | DATE | |
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|  OTHER DOCUMENTS | | | | |
| | | | Jäger et al., "Strategies for the Development of Vaccines to Treat Breast Cancer," <i>Recent Results Cancer Res.</i> 152:94-102 (1998). | |
| | | | Kirkin et al., "Melanoma-Associated Antigens Recognized by Cytotoxic T Lymphocytes," <i>APMIS</i> 106:665-679 (1998). | |
| | | | Kitaoka et al., "Distribution of FGF-5 in the Rhesus Macaque Retina," <i>Invest. Ophthalmol. Vis. Sci.</i> 35:3189-3198 (1994). | |
| | | | Kornmann et al., "Fibroblast Growth Factor-5 Stimulates Mitogenic Signaling and is Overexpressed in Human Pancreatic Cancer: Evidence for Autocrine and Paracrine Actions," <i>Oncogene</i> 15:1417-1424 (1997). | |
| | | | Lee et al., "NY-ESO-1 May be a Potential Target for Lung Cancer Immunotherapy," <i>Cancer J. Sci. Am.</i> 5:20-25 (1999). | |
| | | | Neumann et al., "Heterogeneous Expression of the Tumor-Associated Antigens RAGE-1, PRAME, and Glycoprotein 75 in Human Renal Cell Carcinoma: Candidates for T-Cell-Based Immunotherapies?," <i>Cancer Res.</i> 58:4090-4095 (1998). | |
| | | | Parmiani, "Future Perspectives in Specific Immunotherapy of Melanoma," <i>Eur. J. Cancer</i> 34:S42-S47 (1998). | |
| | | | Ramakrishna et al., "Generation and Phenotypic Characterization of New Human Ovarian Cancer Cell Lines with the Identification of Antigens Potentially Recognizable by HLA-Restricted Cytotoxic T Cells," <i>Int. J. Cancer</i> 73:143-150 (1997). | |
| | | | Rivoltini et al., "Recognition of Melanoma-Derived Antigens by CTL: Possible Mechanisms Involved in Down-Regulating Anti-Tumor T-Cell Reactivity," <i>Critical Rev. Immunol.</i> 18:55-63 (1998). | |
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|  OTHER DOCUMENTS | | | | |
| | | | Wang et al., "A Breast and Melanoma-Shared Tumor Antigen: T Cell Responses to Antigenic Peptides Translated from Different Open Reading Frames," <i>J. Immunol.</i> 161:3596-3606 (1998). | |
| | | | Weidmann et al., "Evidence for Oligoclonal T-Cell Response in a Metastasis of Renal Cell Carcinoma Responding to Vaccination with Autologous Tumor Cells and Transfer of <i>in Vitro</i> -Sensitized Vaccine-Draining Lymph Node Lymphocytes," <i>Cancer Res.</i> 53:4745-4749 (1993). | |
| | | | Werner et al., "Fibroblast Growth Factor 5-Proto-Oncogene is Expressed in Normal Human Fibroblasts and Induced by Serum Growth Factors," <i>Oncogene</i> 6:2137-2144 (1991). | |
| | | | Wilson et al., "Cross-Recognition of Two Middle T Protein Epitopes by Immunodominant Polyoma Virus-Specific CTL," <i>J. Immunol.</i> 162:3933-3941 (1999). | |
| | | | Yamanaka et al., "Expression of Fibroblast Growth Factors in Human Non-Papillary Renal Cell Carcinoma: Correlation with Tumor Progression," <i>International J. of Clin. Oncol.</i> 1999 (Abstract). | |
| | | | Yoshimura et al., "Messenger Ribonucleic Acids for Fibroblast Growth Factors and Their Receptor in Bladder and Renal Cell Carcinoma Cell Lines," <i>Cancer Lett.</i> 103:91-97 (1996). | |
| | | | Zhan et al., "The Human FGF-5 Oncogene Encodes a Novel Protein Related to Fibroblast Growth Factors," <i>Mol. Cell. Biol.</i> 8:3487-3495 (1988). | |
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